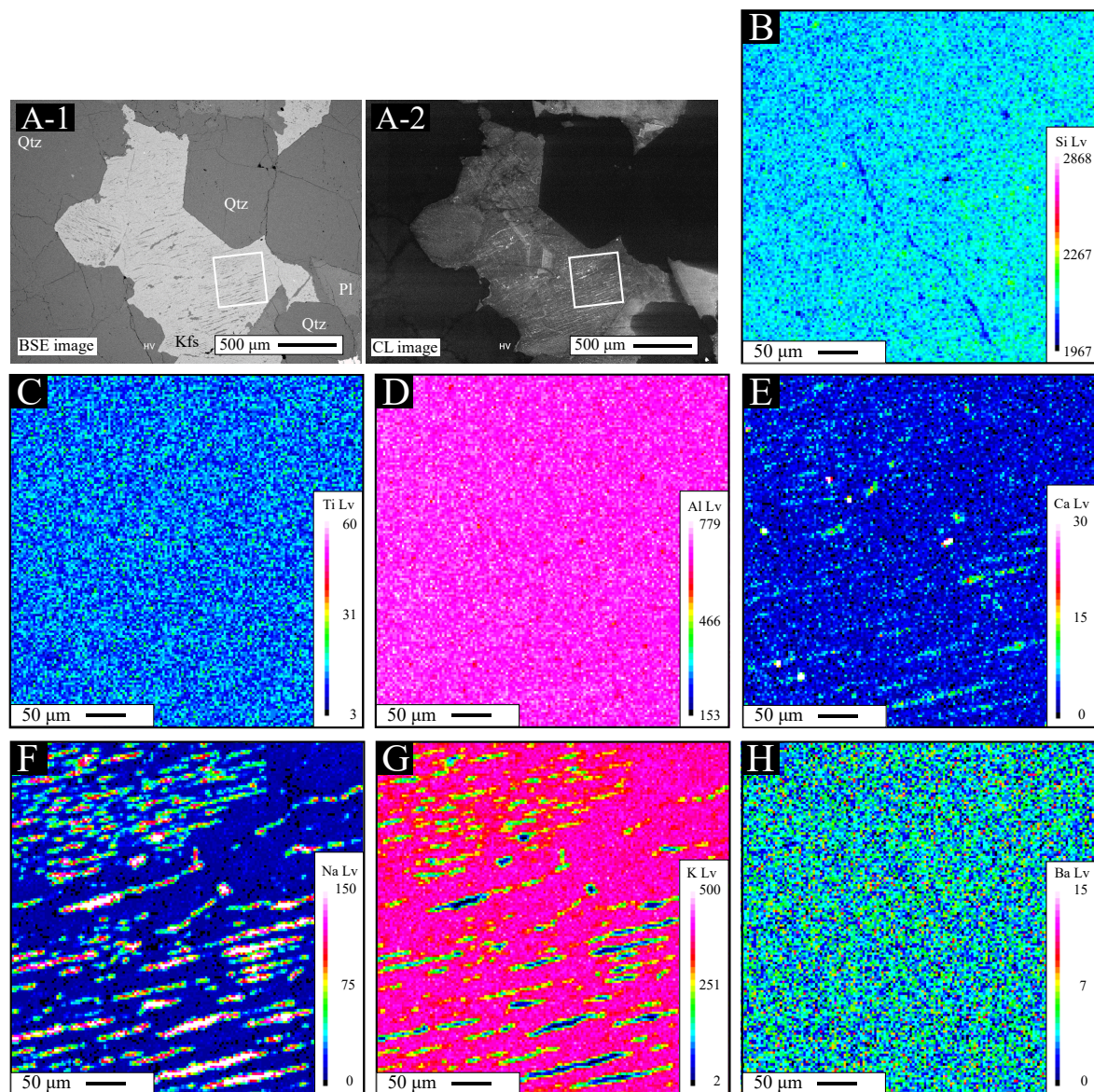


**FIGURE S1.** Backscattered electron image (A-1), cathodoluminescence image (A-2), and WDS elemental maps showing silicon (B), titanium (C), aluminum (D), calcium (E), sodium (F), potassium (G), and barium (H) of a SCOZ K-feldspar grain No. 9 (MIZ1-17)-7. WDS elemental maps were obtained with a 5 μm step size and a resolution up to 200 × 200 pixels.



**FIGURE S2.** Backscattered electron image (A-1), cathodoluminescence image (A-2), and WDS elemental maps showing silicon (B), titanium (C), aluminum (D), calcium (E), sodium (F), potassium (G), and barium (H) of a SCOZ K-feldspar grain No. 3 (DH11-31)-7. WDS elemental maps were obtained with a 3 μm step size and a resolution up to 150 × 150 pixels.